

# Work Order ID 62739

Thursday, October 07, 2010 8:52:46 AM

Page 1

Item ID: D3980-041  
Revision ID: PRELIM  
Item Name: Bearpaw Assembly

**PRELIMINARY ISSUE**

Start Date: 10/7/2010 Start Qty: 1.00

Required Date: 10/14/2010 Req'd Qty: 1.00

Reference:

Cust Item ID:  
Customer:

Setup Start

Stop

Run Start

Stop

Approvals: Process Plan: mf Date: 10-10-07 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3980	PA1

100 0.00



Pick Kit

HandThermo

Memo

Hand Finishing Thermoforming

Pick Kit

110 0.00



Assembly

HandThermo

Memo

Hand Finishing Thermoforming

- 1- Use wearbar to transfer drill hole and open to finish size as per dwg
- 2-- Deburr
- 3- Assemble as per Dwg D3980
- 4-Install wearplates as per dwg.

10-10-07

120 0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

Quality Control

N/A

PTC

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/10/06	110	Wear bars not installed. Not Required for test parts.	W.	10/10/06	2.	10/10/07	10/10/07
10/10/07	120	QC 2 not necessary, it is followed by a QCS remove perm change				10/10/07	10/10/07

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



NOTE: Date & initial all entries




# Work Order ID 62739

Thursday, October 07, 2010 8:52:46 AM

Page 2

Item ID:	D3980-041	Accept		Setup	Start	
Revision ID:	PRELIM				Stop	
Item Name:	Bearpaw Assembly					
Start Date:	10/7/2010	Start Qty:	1.00			
Required Date:	10/14/2010	Req'd Qty:	1.00		Cust Item ID:	
Reference:					Customer:	

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00	<i>10.10.07</i> <i>Test bear paw</i>			<i>III</i>			<i>10.10.07</i> <i>MAZ</i>
140  Packaging Packaging	Identify as per dwg & Stock Location: <i>THUMB FORK</i> Memo <i>TESTER</i>	0.00  0.00	<i>10.10.07</i>						
150  QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00	<i>10.10.07</i> <i>Test bear paw</i> <i>with previous revisions</i> <i>(Non-conforming to spec)</i> <i>W EUG MS</i> <i>10.10.07</i>						

POSITIVE RECALL  
EFFECTIVE *10.10.07* AUTH *ME*  
RELEASED \_\_\_\_\_ DATE \_\_\_\_\_  
*10-11-4*  
*R0301*  
*NOV*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Thursday, October 07, 2010 8:52:46 AM

Page 1

Work Order ID: 62739



Parent Item: D3980-041



Parent Item Name: Bearpaw Assembly

Start Date: 10/7/2010

Required Date: 10/14/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev. A New Issue 2010/10/05 DL VERF:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3C5A  Bolt		Purchased	No			100	Each	1,274.000	7	5	2	10-10-07	

Location Loc Qty Loc Code

ST350	1264	
114330	11	
115015	16	
115316	105	
115371	100	
115422	100	
115594	432	
115835	500	
ST351	10	
113121	10	

10-10-07  
NOT REQUIRED  
FOR TESTING

AN4C7A AUAC6A



Bolt

10-10-07

PTO

Purchased

No

100

Each

452.0000

4

4



1112243

See PTO ->

Location Loc Qty Loc Code

ST356	452	
109147	452	

D3456-1



Washer

Manufactured

No

100

Each

21.0000

4

4



Location Loc Qty Loc Code

ST058	21	
54692	21	

4 10-10-06

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
10.10.07		AN4C7A too Low. PERMANENT CHG TO AD4C5A. FOR REV.A M112243	108	10.10.06	4	10.10.07	10.10.06	
10.10.02		AD4C5A ADD TWO. FOR REV.A				10.10.02		

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Thursday, October 07, 2010 8:52:46 AM

Page 3

Work Order ID: 62739

Parent Item: D3980-041

Parent Item Name: Bearpaw Assembly

Start Date: 10/7/2010

Required Date: 10/14/2010

Start Qty: 1.00

Required Qty: 1.00

MS21043-4



# Picklist Print

Thursday, October 07, 2010 8:52:46 AM

Page 2

Work Order ID: 62739

Parent Item: D3980-041

Parent Item Name: Bearpaw Assembly

Start Date: 10/7/2010

Required Date: 10/14/2010

Start Qty: 1.00

Required Qty: 1.00

D3980-1 Manufactured No 100 Each 0.0000



429 Bearpaw

D4015-041



Wearbar Weldment

Manufactured No 100 Each 56.0000

Location	Loc Qty	Loc Code
ST109	56	
53818	45	
53956	11	

D4211-043 Manufactured No 100 Each 0.0000



Wearplate, Aft

MS21043-3



Nut

Purchased No 100 Each 2,587.000

Location	Loc Qty	Loc Code
FG	76	
103691	76	
ST301	2511	
111383	46	
112314	2465	

1 1  
B62544 10.10.07  
7 7 PRO X 2

NOT REQ'D  
FOR TEST 10.10.07

1 1  
B62514  
7 7 PRO X 2 10.10.07

NOT REQ'D  
FOR TEST 10.10.07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

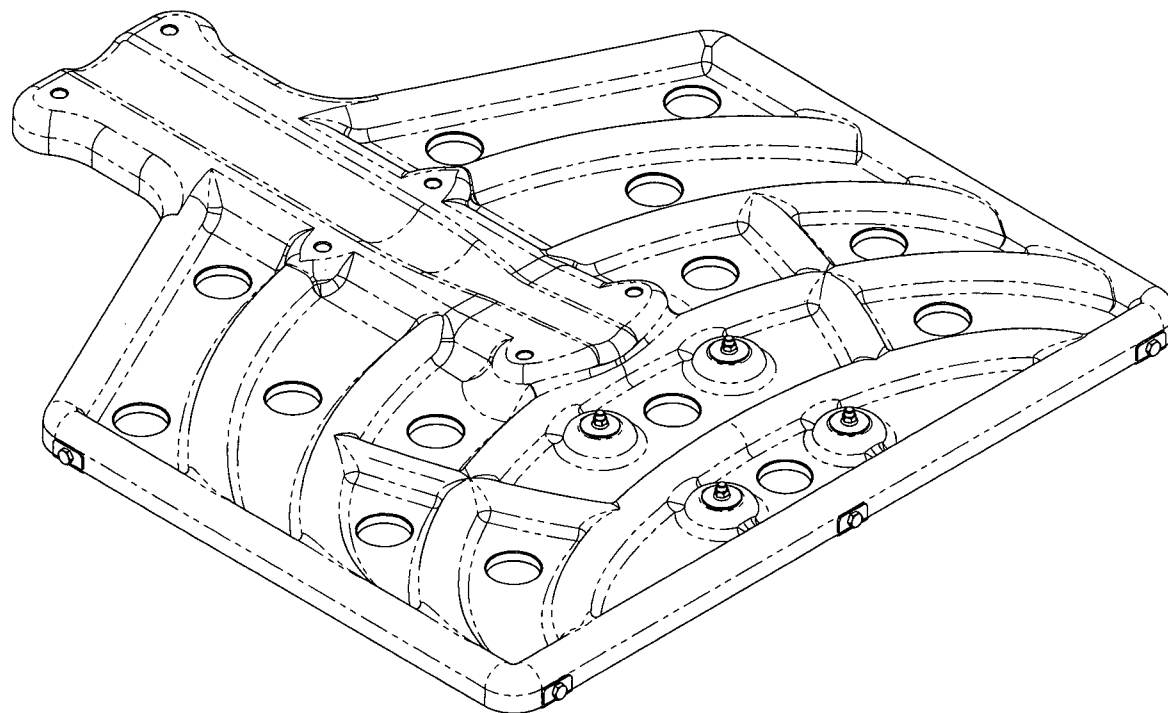
**NOTE:** Date & initial all entries

H:\FORMS\Quality Assurance\approved QA\NCRWO RevE


**NOTE:** Date & initial all entries

H:\FORMS\Quality Assurance\approved QA\NCRWO RevE





**D3980-041 429 BEARPAW ASSY**

**PRELIMINARY ISSUE**

10.09.28

PA1	NEW ISSUE	MB	10.09.28
REV.		DESCRIPTION	BY DATE
DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO.- <b>D3980</b> TITLE <b>429 BEARPAW ASSY</b> SCALE NTS	REV. PA1
DRAWN			SHEET 1 OF 3
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.09.28	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



ITEM	QTY -041	P/N	DESCRIPTION
	X	D3980-041	429 BEARPAW ASSY
1	4	D3456-1	WASHER
2	1	D3980-1	429 BEARPAW
3	1	D4211-043	AFT WEARPLATE
4	87	D4015-041	WEARBAR
5	82	AN3C5A	BOLT
6	4	AN404 5A	BOLT
7	4	MS21043-4	NUT
8	87	MS21043-3	NUT
9	4	NAS1149D0463J	WASHER

*(Handwritten notes)*

↓

10 10 10

for

3 4 5 6 7 8 9


#6273

## PRELIMINARY ISSUE

10.09.28

D3980-041 NOTES:

- 03980F041 NOTES:
- 1) MATERIAL: N/A
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 8.89 lbs
  - 8) LOCATE D4015-041 (ITEM 3) AS SHOWN AND TRANSFER DRILL Ø0.191 HOLE FROM D4015-041 TO D3980-1 BEARPAW AND FASTEN USING PRESCRIBED HARDWARE.
  - 9) TORQUE: AN3 NUTS = 15-20 in-lb  
AN4 NUTS = 50-70 in-lb

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA
MFG. APPR.		D3980	SHEET 2 OF
APPROVED		TITLE	SCALE
DE APPR.		429 BEARPAW ASSY	NTS
DATE	10.09.28	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	

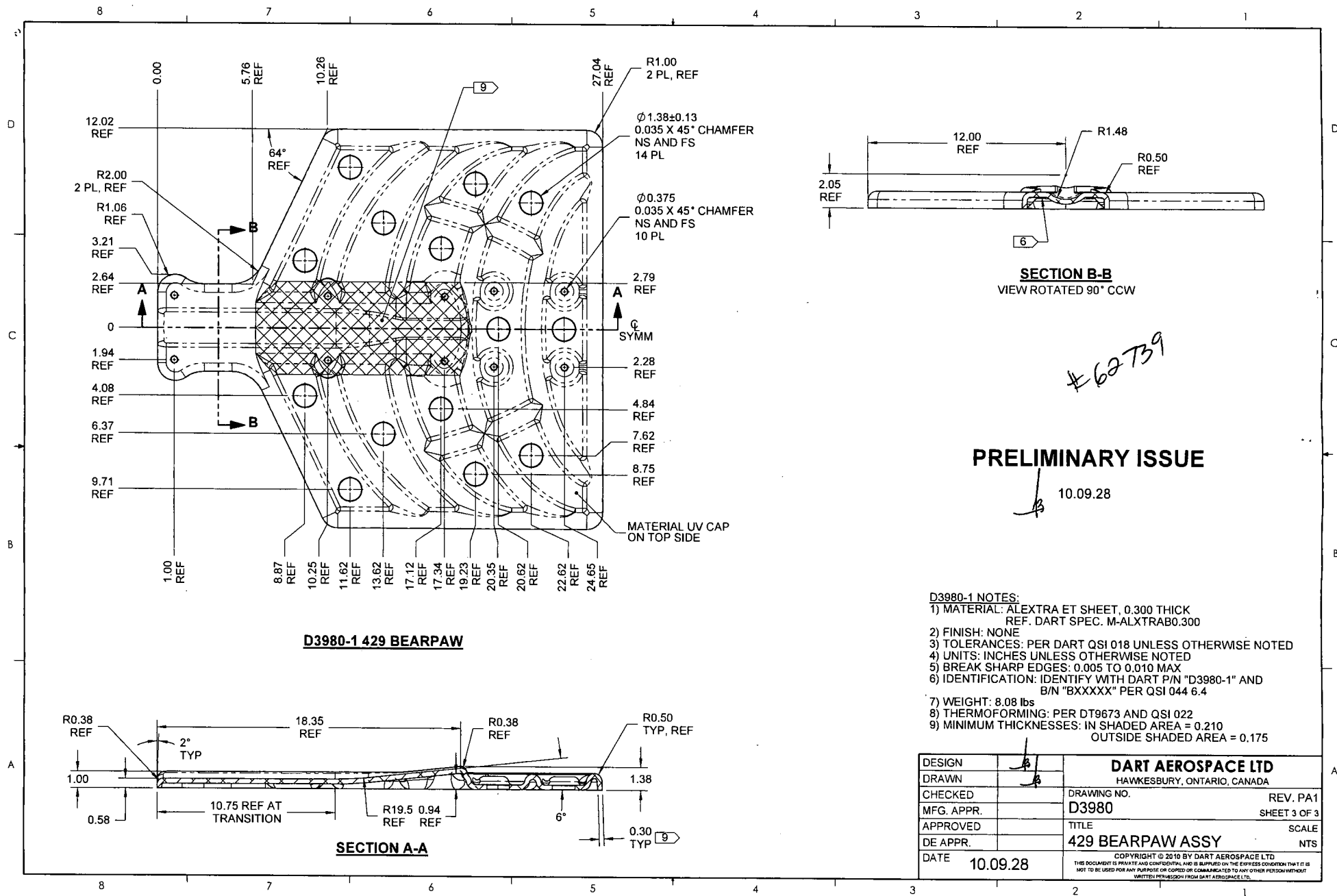
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



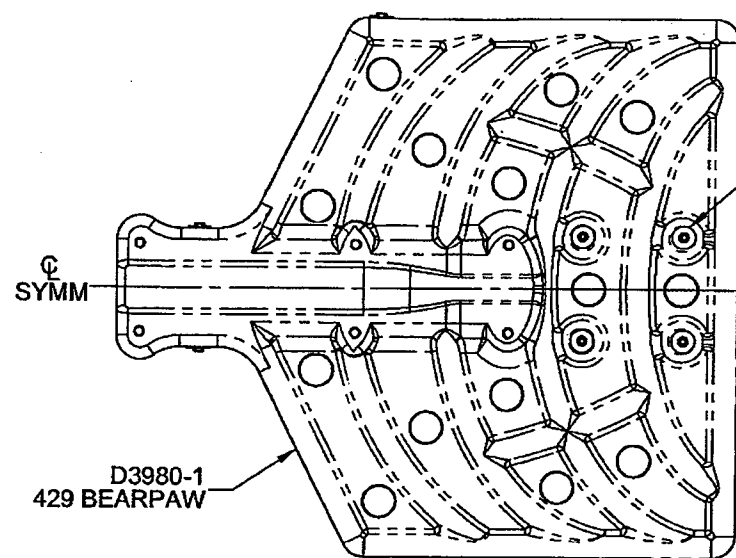
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

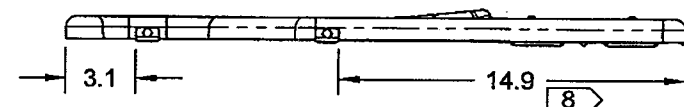
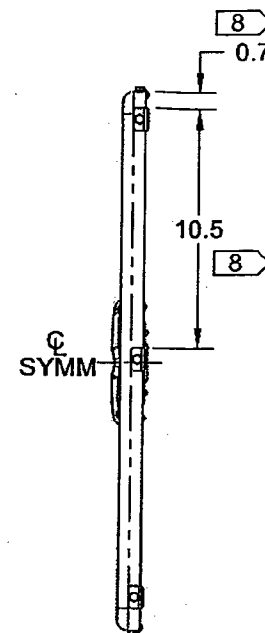
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

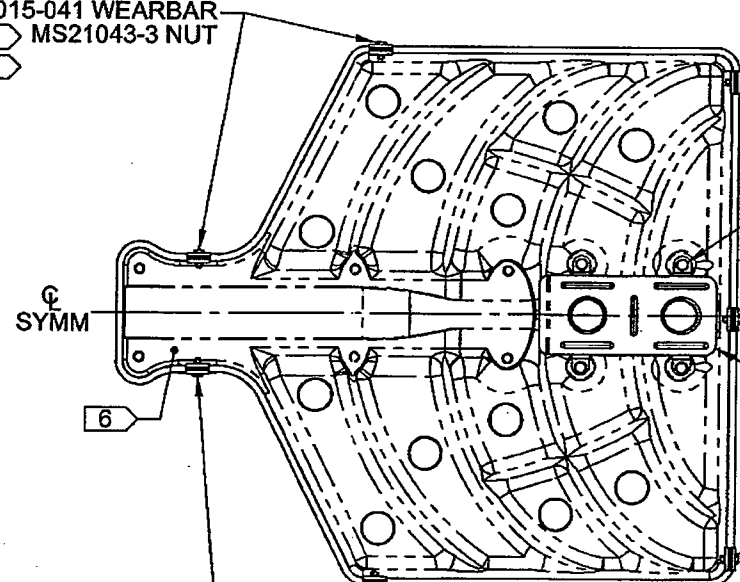
**NOTE:** Date & initial all entries



D3456-1 WASHER  
MS21043-4 NUT  
4 PL 9



AN3C5A BOLT  
D4015-041 WEARBAR  
MS21043-3 NUT  
8  
9



AN3C5A BOLT  
D4015-041 WEARBAR  
MS21043-3 NUT  
8  
9

AN4C5A BOLT 9  
NAS1149D0463J WASHER

AN3C5A BOLT  
D4015-041 WEARBAR  
MS21043-3 NUT  
8  
9

D4211-043  
AFT WEARPLATE

AN3C5A BOLT  
D4015-041 WEARBAR  
MS21043-3 NUT  
8  
9

AN3C5A BOLT  
D4015-041 WEARBAR  
MS21043-3 NUT  
8  
9

**D3980-041 429 BEARPAW ASSY**

ITEM	QTY -041	P/N	DESCRIPTION
	X	D3980-041	429 BEARPAW ASSY
1	4	D3456-1	WASHER
2	1	D3980-1	429 BEARPAW
3	1	D4211-043	AFT WEARPLATE
4	7	D4015-041	WEARBAR
5	7	AN3C5A	BOLT
6	4	AN4C5A	BOLT
7	4	MS21043-4	NUT
8	7	MS21043-3	NUT
9	4	NAS1149D0463J	WASHER

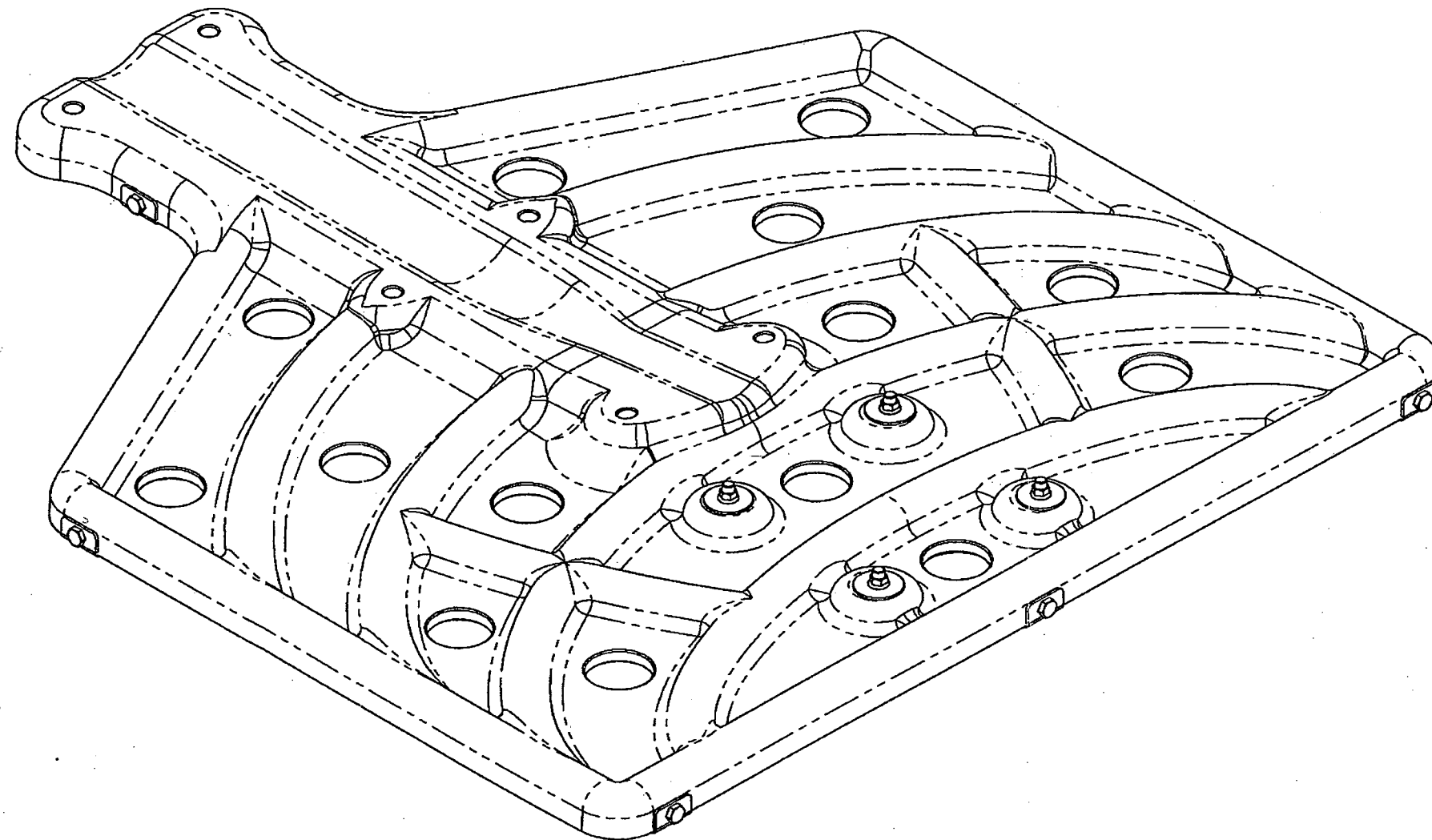
**RELEASED**  
2010-10-07  
MM

**D3980-041 NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3980-041" AND B/N "BXXXXX" PER QSI 044 6.4
- 7) WEIGHT: 8.62 lbs
- 8) LOCATE D4015-041 (ITEM 3) AS SHOWN AND TRANSFER DRILL  $\varnothing 0.191$  HOLE FROM D4015-041 TO D3980-1 BEARPAW AND FASTEN USING PRESCRIBED HARDWARE.
- 9) TORQUE: AN3 NUTS = 15-20 in-lb  
AN4 NUTS = 50-70 in-lb

DESIGN		<b>DART AEROSPACE LTD</b>
DRAWN		HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO. REV. A
MFG. APPR.		D3980 SHEET 2 OF 3
APPROVED		TITLE SCALE
DE APPR.		429 BEARPAW ASSY NTS
DATE	10.09.28	

COPYRIGHT © 2010 BY DART AEROSPACE LTD  
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS  
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT  
WRITTEN PERMISSION FROM DART AEROSPACE LTD.



**D3980-041 429 BEARPAW ASSY**

**RELEASED**  
 2010-10-03  
*MB*

A	NEW ISSUE	MB	10.09.28
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>[Signature]</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3980	SHEET 1 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.		429 BEARPAW ASSY	NTS
DATE	10.09.28	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD        THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS        NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT        WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	